

# Credentialing and training of CREST stentors

Thomas L. Forbes, MD, *London, Ontario, Canada*

A report describing the credentialing and training of stentors in the Carotid Revascularization Endarterectomy vs Stenting Trial (CREST) was recently presented at the 2009 International Stroke Conference of the American Heart Association (San Diego, Calif, Feb 18-20, 2009).<sup>1</sup>

CREST is an ongoing randomized clinical trial comparing carotid endarterectomy and carotid artery stenting (CAS) in stroke prevention. To limit the learning curve effect, trial investigators have adopted a two-step credentialing and training algorithm. Initially, prospective investigators submit data on their most recent 10 to 30 consecutive CAS cases to a multidisciplinary interventional management committee (IMC). If approved by the IMC, candidates enter a lead-in credentialing phase with animal training or didactic and hands-on training, or both, before performing up to 20 CAS lead-in cases for review by the IMC. After final approval, operators may enroll patients in the randomized phase. The IMC does have the prerogative to exempt operators from the lead-in phase if they have demonstrated sufficient CAS experience in other trials.

Of the 429 operators who applied, 225 (52%) were eventually approved for randomization. Initially, 117 oper-

ators did not fulfill the requirements to advance, and 70 were exempted from the lead-in phase because of prior experience. Of the 198 operators approved for the lead-in phase, 40% were cardiologists and 21% were vascular surgeons, and 160 were approved for the randomization phase after completing an average of nine CAS cases (range, 1-35) in the lead-in phase. A total of 225 operators from 122 sites have been approved.

The CREST investigators conclude that this process is more rigorous than those in other CAS trials and should reduce the learning curve effects.

## COMMENTARY

The CREST investigators attempt to alleviate concerns about stent operator experience by outlining their credentialing and training process. Half of those who originally applied were approved to participate in the randomization phase. The largest number of participants was cardiologists (40%), with vascular surgery represented by 21% of operators.

Whether this process results in improved stenting outcomes remains to be seen. Interestingly, there is no such process for those performing endarterectomy despite the well-documented training-volume-outcome relationship.

## REFERENCE

1. Roubin G, Ferguson R, Chakhtoura E, Gray W, Rosenfield K, Katzen B, et al; for the CREST Investigators. Credentialing and training of interventionalists in the Carotid Revascularization Endarterectomy vs Stenting Trial (CREST). *Stroke* 2009;40:3.

Submitted Feb 23, 2009; accepted Feb 23, 2009.

From the Division of Vascular Surgery, London HSC & The University of Western Ontario.

Competition of interest: none.

Correspondence: Thomas L. Forbes, MD, Division of Vascular Surgery, London HSC & The University of Western Ontario, 800 Commissioners Rd E, E2-119, London, ON N6A 5W9, Canada (e-mail: [Tom.Forbes@lhsc.on.ca](mailto:Tom.Forbes@lhsc.on.ca)).

J Vasc Surg 2009;49:1619

0741-5214/\$36.00

Copyright © 2009 by the Society for Vascular Surgery.

doi:10.1016/j.jvs.2009.02.228